

Mental Math Subtraction Strategies

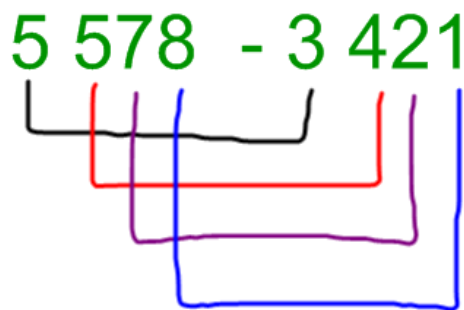
1. Front-end subtraction
2. Friendly numbers
3. Counting on

Mental Subtraction Strategies

Learning Goal: subtract numbers mentally

Strategy 1 - Adding left to right or Front-end subtraction

- Subtract each digit to the other digit in the same place value

$$\begin{array}{r} 5578 \\ - 3421 \\ \hline \end{array}$$


So:

I know that:

$$5 - 3 = 2$$

$$5 - 4 = 1$$

$$7 - 2 = 5$$

$$8 - 1 = 7$$

$$5000 - 3000 = 2000$$

$$500 - 400 = 100$$

$$70 - 20 = 50$$

$$8 - 1 = 7$$

$$2157$$

- Is more challenging if you need to regroup.

$$73 - 59 =$$

$$7 - 5 = 2$$

$$3 - 9 \text{ is a negative number}$$

I would have to regroup 73 from 7 tens and 3 ones to 6 tens and 13 ones

$$60 - 50 = 10$$

$$13 - 9 = 4$$

$$14$$

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Strategy 2 - Friendly numbers

- Is easy to do with numbers close to ten, hundreds, thousands

536 - 399

↓ ↓

536 - 400 = 136

↓ ↓

so 536 - 399 = 137

1. Change one number to an easier number.

2. Calculate with the easier numbers.

3. I need to do the same change to my answer to solve the problem.

This strategy is **different from the adding friendly numbers strategy** because you do not balance the number by reversing the change.

You need to keep a constant difference, so you must do the same change to your answer with the easier numbers, otherwise you get the wrong difference.

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Learning Goal: Subtracting numbers mentally

Strategy 3 - Counting On

- Use a mental number line to subtract the numbers. *You can draw the number line to help you remember each part.*
- Works well with numbers that have digits that need to be regrouped

$$431 - 284$$



I know that
 $200 + 31 + 50 + 3 = 284$

1. Write the bigger number on the number line.
2. Break the subtrahend into easy "jumps" to calculate.
3. Add all the "jumps" to find the difference.